

**Standard 1: The Cell**—Cells are the fundamental unit of life, composed of a variety of structures that perform functions necessary to maintain life.

1. Cells are composed of a variety of structures, such as the nucleus, cell membrane, cell wall, cytoplasm, ribosomes, mitochondria, and chloroplasts. **FIVE QUESTIONS ON EOI**

	function	structure	Plant, animal and/or bacteria*
cytoplasm			
ribosome			
cell wall			
chloroplasts			
nucleus			
mitochondria			
cell membrane <sup>+</sup>			

\* Be sure you can classify a cell as animal plant or bacteria based on the structures they have.

<sup>+</sup> Define the following terms and explain how they relate to the cell membrane:

osmosis –

diffusion –

surface area to volume ratio –

2. Cells can differentiate and may develop into complex multicellular organisms (i.e., cells, tissues, organs, organ systems, organisms). **THREE QUESTIONS ON EOI**

List the following in order from least complex to most complex and define them:

cells    organisms    organs    organ systems    tissues